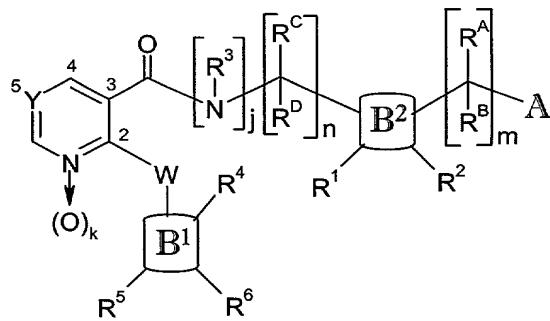
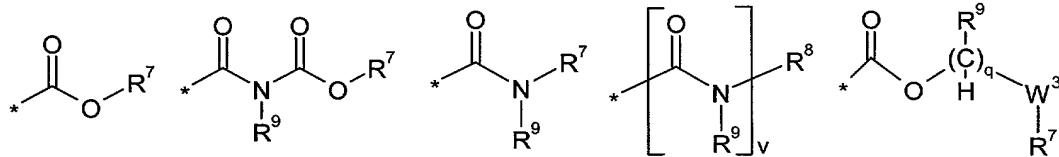


ABSTRACT OF THE DISCLOSURE

Compounds useful as inhibitors of PDE4 in the treatment of diseases regulated by the activation and degranulation of eosinophils, especially asthma, chronic bronchitis, and chronic obstructive pulmonary disease, of the formula:



wherein j is 0 or 1, k is 0 or 1, m is 0, 1, or 2; n is 1 or 2; A is selected from the partial formulas:

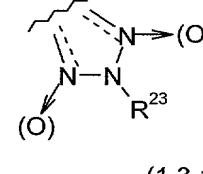
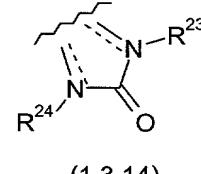
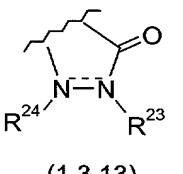
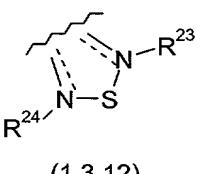
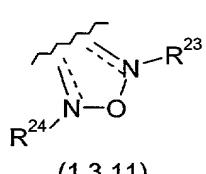
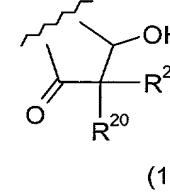
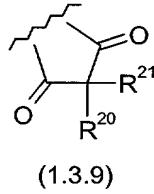
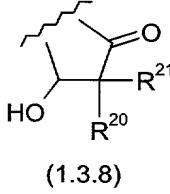
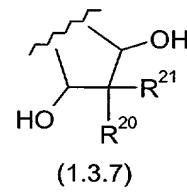
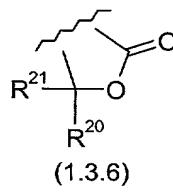
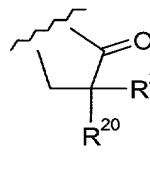
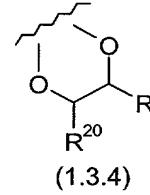
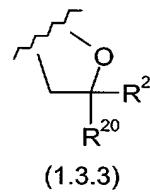
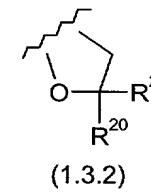
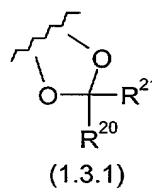


10 where **q** is 1, 2, or 3, **W**³ is $-O-$; $-N(R^9)-$; or $-OC(=O)-$; **R**⁷ is selected from $-H$; $-(C_1-C_6)$ alkyl, $-(C_2-C_6)$ alkenyl, or $-(C_2-C_6)$ alkynyl substituted by 0 to 3 substituents **R**¹⁰; $-(CH_2)_u-(C_3-C_7)$ cycloalkyl where **u** is 0, 1 or 2, substituted by 0 to 3 **R**¹⁰; and phenyl or benzyl substituted by 0 to 3 **R**¹⁴; **R**⁸ is tetrazol-5-yl; 1,2,4-triazol-3-yl; 1,2,4-triazol-3-on-5-yl; 1,2,3-triazol-5-yl; imidazol-2-yl; imidazol-4-yl; imidazolidin-2-on-4-yl; 1,3,4-oxadiazolyl; 1,3,4-oxadiazol-2-on-5-yl; 1,2,4-oxadiazol-3-yl; 1,2,4-oxadiazol-5-on-3-yl; 1,2,4-oxadiazol-5-yl; 1,2,4-oxadiazol-3-on-5-yl; 1,2,5-thiadiazolyl; 1,3,4-thiadiazolyl; morpholinyl; parathiazinyl; oxazolyl; isoxazolyl; thiazolyl; isothiazolyl; pyrrolyl; pyrazolyl; succinimidyl; glutarimidyl; pyrrolidonyl; 2-piperidonyl; 2-pyridonyl; 4-pyridonyl; pyridazin-3-onyl; pyridyl; pyrimidinyl; pyrazinyl; pyridazinyl; indolyl; indolinyl; isoindolinyl; benzo[b]furanyl; 2,3-dihydrobenzofuranyl; 1,3-dihydroisobenzofuranyl; 2-H-1-benzopyranyl; 2-H-chromenyl; chromanyl; benzothienyl; 1H-indazolyl; benzimidazolyl; benzoxazolyl; benzisoxazolyl; benzothiazolyl; benzotriazolyl; benzotriazinyl; phthalazinyl; 1,8-naphthyridinyl; quinolinyl; isoquinolinyl; quinazolinyl; quinoxalinyl; pyrazolo[3,4-d]pyrimidinyl; pyrimido[4,5-d]pyrimidinyl; imidazo[1,2-a]pyridinyl; pyridopyridinyl; pteridinyl; or 1H-purinyl; or **A** is selected from phosphorous and sulfur acid groups; **W** is $-O-$; $-S(=O)_t-$, where **t** is 0, 1, or 2; or $-N(R^3)-$; **Y** is $=C(R^1_a)-$, or

-[N \Rightarrow (O) $_k$] where k is 0 or 1; R 4 , R 5 and R 6 are (1) -H; provided that R 5 and R 6 are not both -H at the same time, -F; -Cl; -(C₂-C₄) alkynyl; -R 16 ; -OR 16 ; -S(=O)_pR 16 ; -C(=O)R 16 , -C(=O)OR 16 , -OC(=O)R 16 ; -CN; -NO₂; -C(=O)NR 16 R 17 ; -OC(=O)NR 16 R 17 ; -NR 12 _aC(=O)NR 16 R 17 ; -NR 12 _aC(=NR 12)NR 16 R 17 ; -NR 12 _aC(=NCN)NR 15 R 16 ; -NR 12 _aC(=N-NO₂)NR 15 R 16 ;

5 -C(=NR 12 _a)NR 15 R 16 ; -CH₂C(=NR 12 _a)NR 16 R 17 ; -OC(=NR 12 _a)NR 16 R 17 ; -OC(=N-NO₂)NR 16 R 17 ; -NR 16 R 17 ; -CH₂NR 16 R 17 ; -NR 12 _aC(=O)R 16 ; -NR 12 _aC(=O)OR 16 ; =NOR 16 ; -NR 12 _aS(=O)_pR 17 -S(=O)_pNR 16 R 17 ; and -CH₂C(=NR 12 _a)NR 16 R 17 ; (2) -(C₁-C₄) alkyl including dimethyl and -(C₁-C₄) alkoxy substituted with 0 to 3 substituents -F or -Cl; or 0 or 1 substituent (C₁-C₂) alkoxycarbonyl-, (C₁-C₂) alkylcarbonyl-, or (C₁-C₂) alkylcarbonyloxy-; or (3) an aryl or

10 heterocyclic moiety; or (4) R 5 and R 6 are taken together to form a moiety of partial Formulas (1.3.1) through (1.3.15):



or a pharmaceutically acceptable salt thereof.